

ALLPCB is a topspeed pcb manufacturer in China, specializing in high quality and cheap pcb prototype & production, pcb assembly and smt stencil services online.

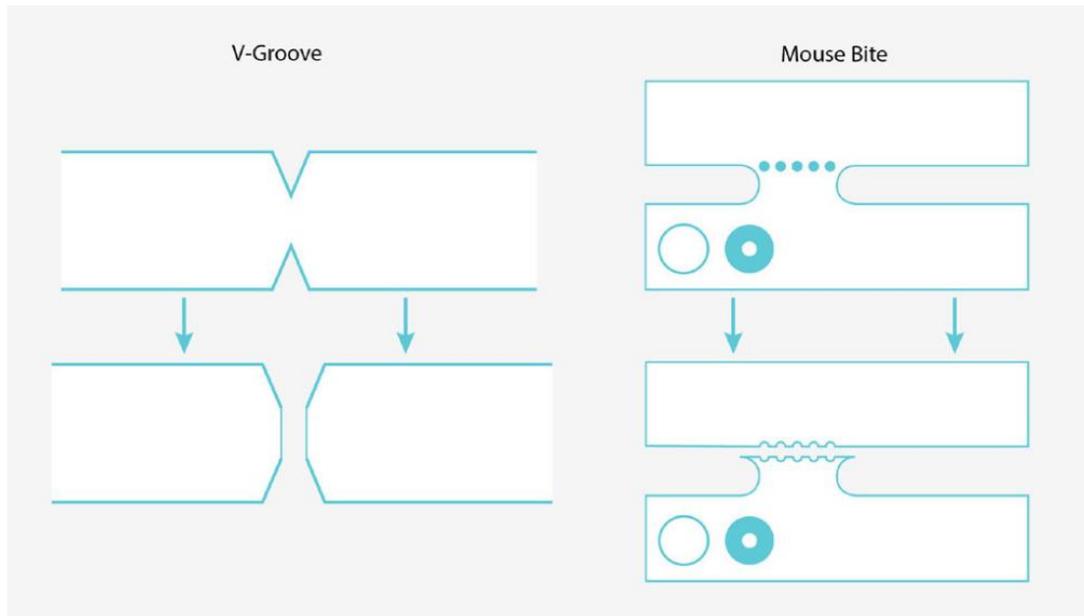
In this article, ALLPCB will introduce 2 methods of depanelizing pcb.



The image is a screenshot of the ALLPCB website's PCB prototype quote interface. On the left, there is a navigation menu with 'PCB Prototype' selected. The main form is titled 'PCB Prototype' and includes fields for 'Dimensions: Height/y x Width/x mm' and 'Quantity: Choose Num (pcs)'. Below these are 'Layers: 2 Layers' and 'Thickness: 1.6'. A 'Quote now' button is at the bottom of the form. To the right, there are promotional banners: 'PCB Prototype ≤ 2500mm²/PC' with 'only \$10 for 5pcs' and 'only \$15 for 10pcs', and '24H lead time Free Shipping' with a DHL logo. Further right, there are three service cards: '1-2 Layers (≤ 1m²) 1 Day Lead time', 'Low-Volume PCB (1-5m²) 3 Days Lead Time', and 'PCB Assembly \$153.00'. The background features images of green PCBs and a DHL airplane.

Two Methods of Depanelizing PCB

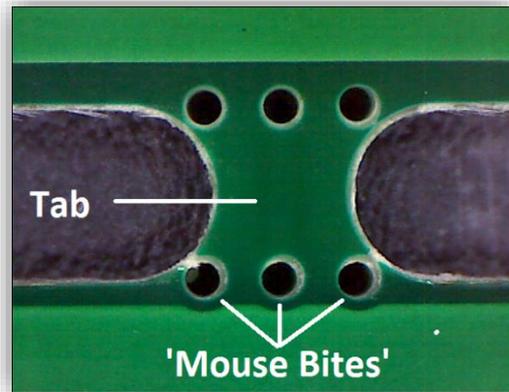
- Mouse Bites (aka Breakaway Tab or Routing)
- V-Score (aka V-Groove)



Mouse Bites PCB

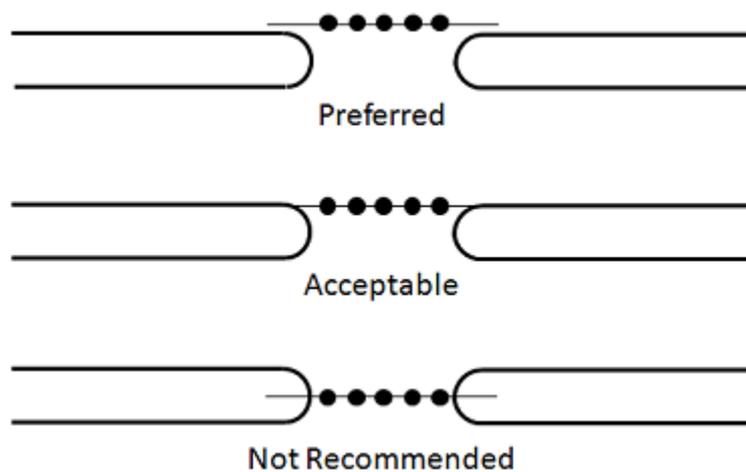
How to Create Mouse Bites on PCB:

- Router cuts outline of the majority of the board
- Few places remain attached and drill holes will be made there to weaken area



Location of Mouse Botes Drill Holes:

- In center of piece connecting board - large laminate left over
- Further into board - less laminate left over
- Ideally with outside edge of holes in line with edge of board - cleaner break



Benefits of Mouse Bites:

- For a better grip when mounted
- Can be economical for hand separating

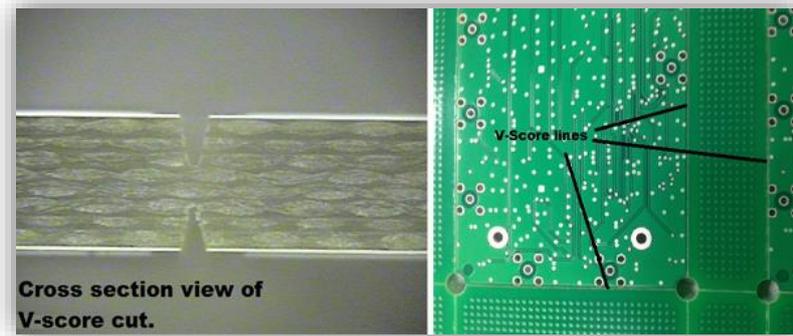
Concerns of Depanelizing Mouse Bites PCB:

- Rough spots where they were attached
- Requires additional time to sand which translates to additional cost
- Boards that have been mostly routed out are structurally weak
- May easily pop out earlier than desired

V-scored PCB

How to Create V-scored PCB:

Shallow v-shaped groove is made on top and bottom of board



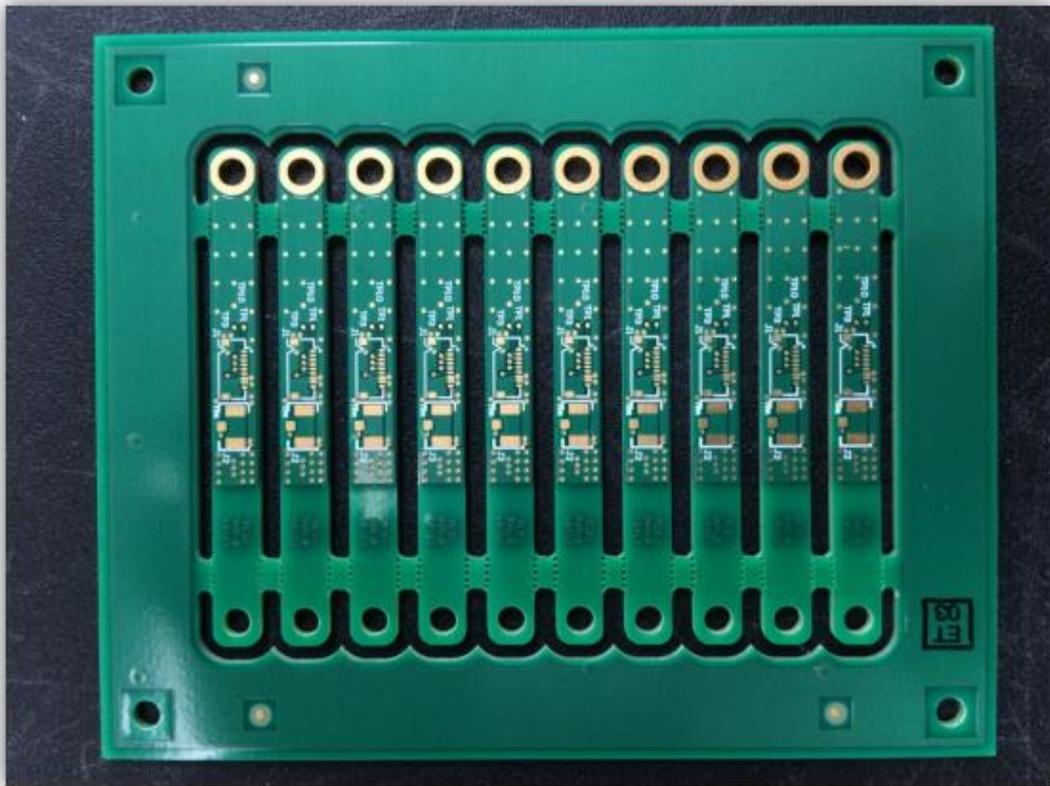
Benefits of V-scores:

- May result in lower costs than mouse bites
- V-scores are easier to make than drilling holes along tabs
- Create greater strength while still part of panel
- Preferred method of assembly houses

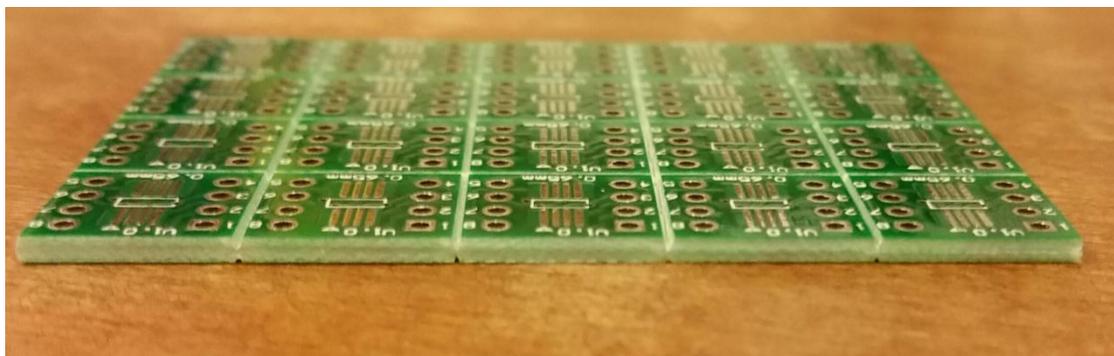
Concerns of Depanelizing V-scored PCB:

- Lots of force need to break apart - Important to make sure components are not popped off during process
- Copper traces too close to score may result in splitting during popping

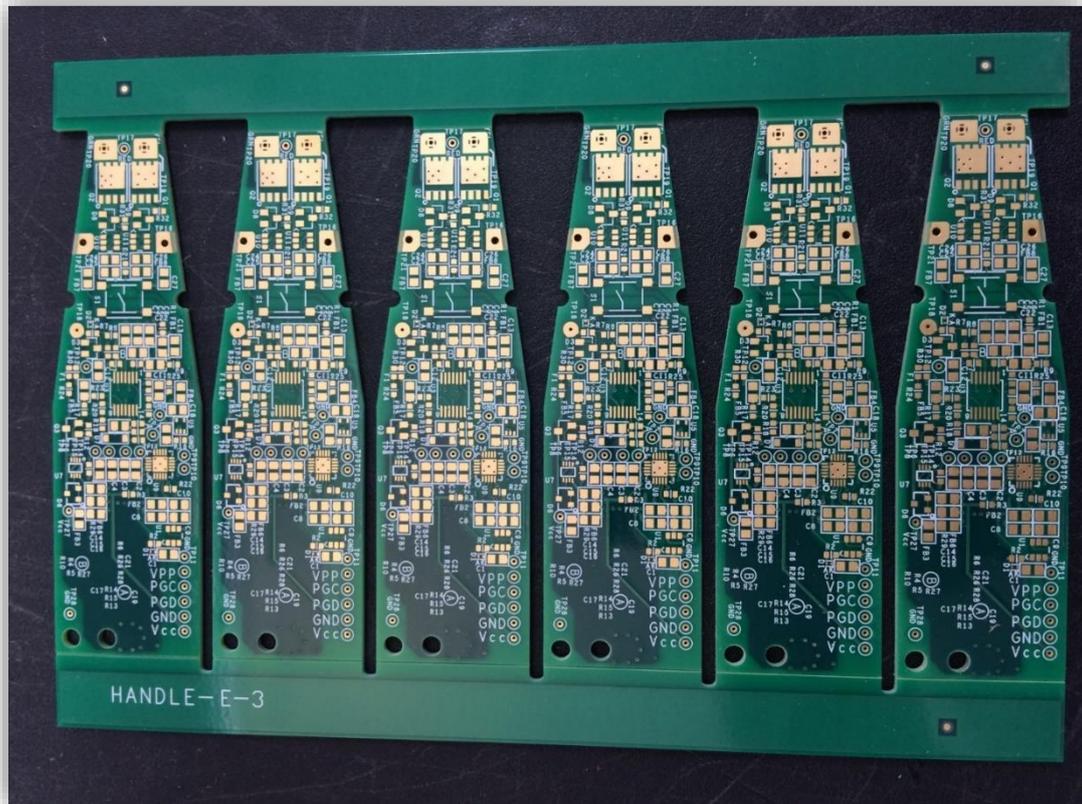
PCB with Mouse Bites



PCB with V-Scores



PCB with Mouse Bites & V-Scores



Please email to service@allpcb.com with additional questions.



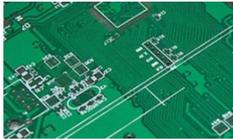
Hangzhou Headquarters



Guangde Production Base



Our Four Promises



Price Guarantee

1 layer within 50*50mm only \$10.00 for 5pcs
2 layers within 50*50mm only \$10.00 for 5pcs
4 layers within 50*50mm only \$65.00 for 5pcs
6 layers within 50*50mm only \$164.00 for 5pcs



Top Raw Material

High quality Kingboard Level A laminate
TAIYO ink series ensure the high quality



Quality Guarantee

100% flying probe test
High-definition silkscreen printer



Topspeed Delivery

1/2 layer PCB shipped within 24H
4/6 layer PCB shipped within 48H